Reviewer's report

Title: Mistletoe lectin is not the only cytotoxic component in fermented preparations of Viscum album from white fir (Abies)

Version: 1 Date: 18 December 2006

Reviewer: Srini Kaveri

Reviewer's report:

General
In this manuscript, Eggenschwiler and colleagues have studied the cytotoxic effects of various Viscum album preparations towards different breast cancer and bladder cancer cell lines. The authors compare the cytotoxic effects of these extracts along with the purified Mistletoe lectins. Based on the results of the cytotoxicity experiments using MTT assay, the authors compare the IC50 concentrations of various samples. The authors conclude that the presence of components other than Mistletoe lectins like Viscotoxins in Iscador®A may be responsible for the cytotoxic effects of the extract. Interestingly, the authors show using the purified mistletoe lectins, that the lectin content of various extracts is not always proportional to the corresponding cytotoxic effect.

The authors suggest the study may lead to future research in determining the various cytotoxic components in Viscum album extracts.

While it is interesting to note that the sensitivity towards isolated mistletoe lectin differs as compared to the effect of the intact preparations; and that the mistletoe lectin content of the various preparations is not necessarily proportional to the corresponding cytotoxic effect, it is important to identify each component and study the contribution of each of the molecules so that a “designer” therapeutic preparations may be conceived.

-------------------------------------------------------------------------------

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Although there are no major revisions that implicate new series of experimental procedures, it is somewhat frustrating to observe that the authors do not document the effect of the non-lectin components by further isolating the individual components from the extracts. The article is concise and self-explanatory.

-------------------------------------------------------------------------------

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Page 3; Approximately instead of Ca. in the lines 7, 10, 11.
2. Page 6; Line 15; Mean instead of means
3. Page 7; Line 3; Cytotoxicity assay instead of 2.2.

-------------------------------------------------------------------------------

Discretionary Revisions (which the author can choose to ignore)

The authors can consider revising the language style in the paper.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests'